

ROADNet and HiSeasNet

ForceNet

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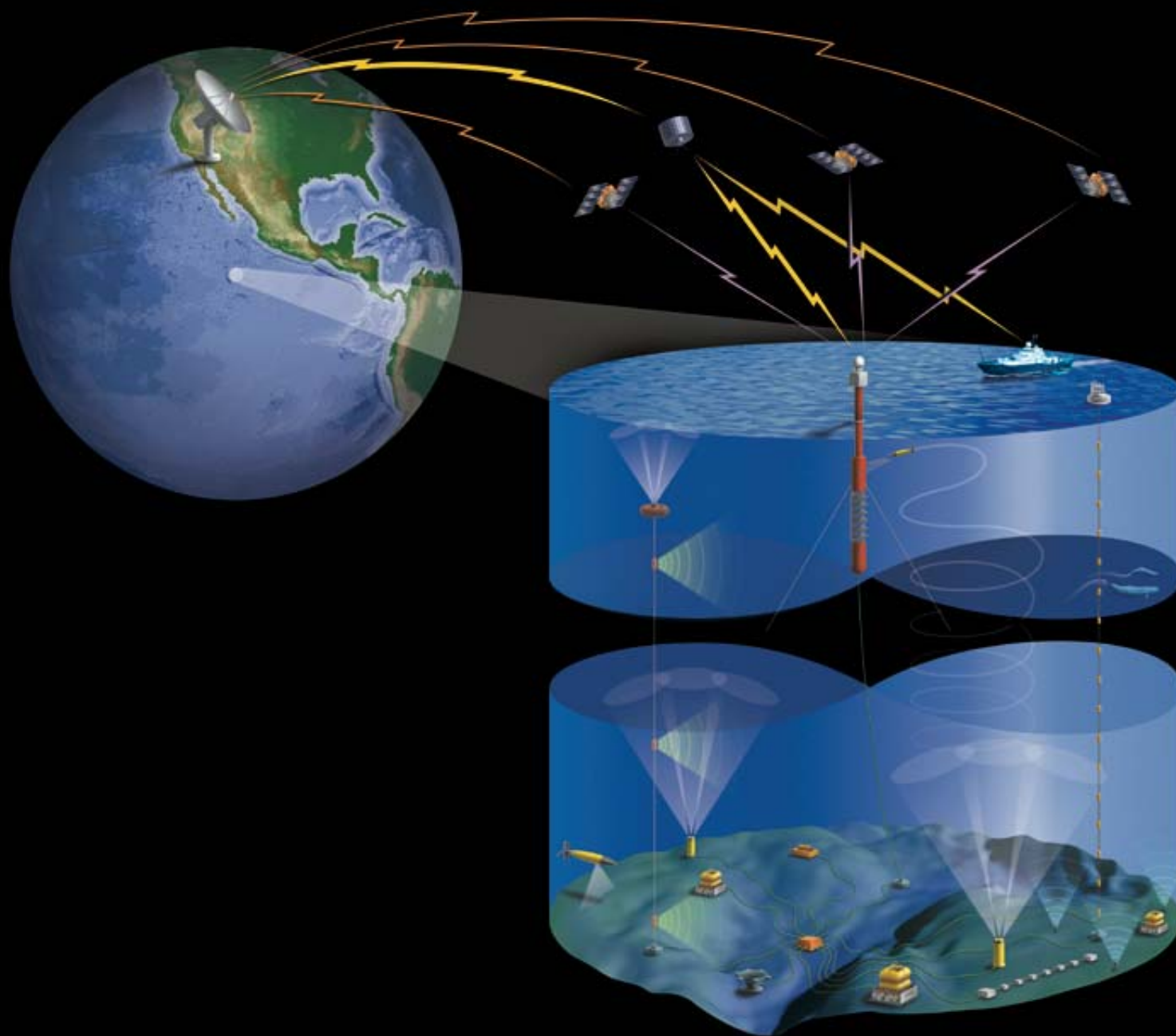
Scripps Institution of Oceanography

University of California

San Diego







HiSeasNet

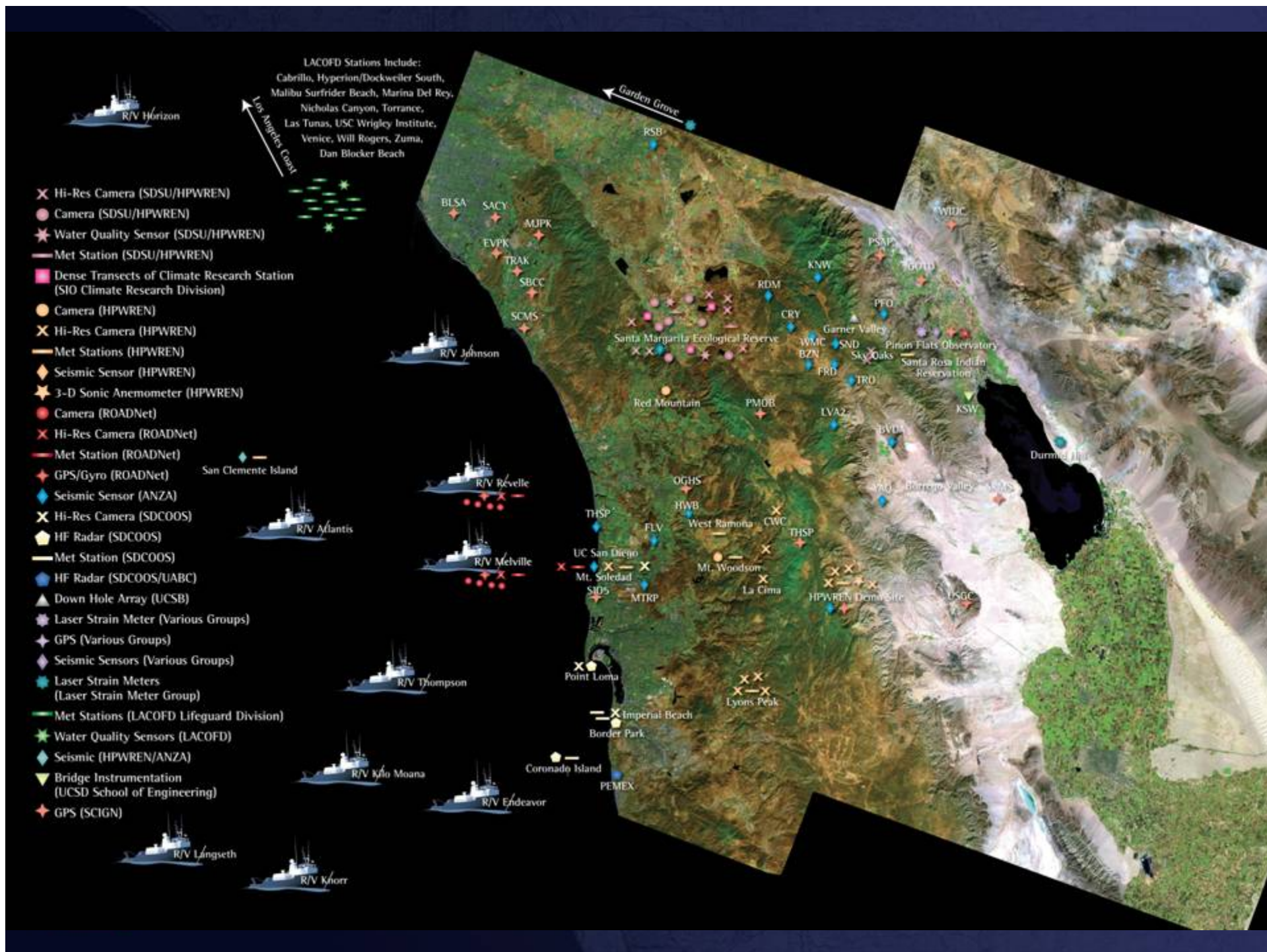


A Real Real-World Application

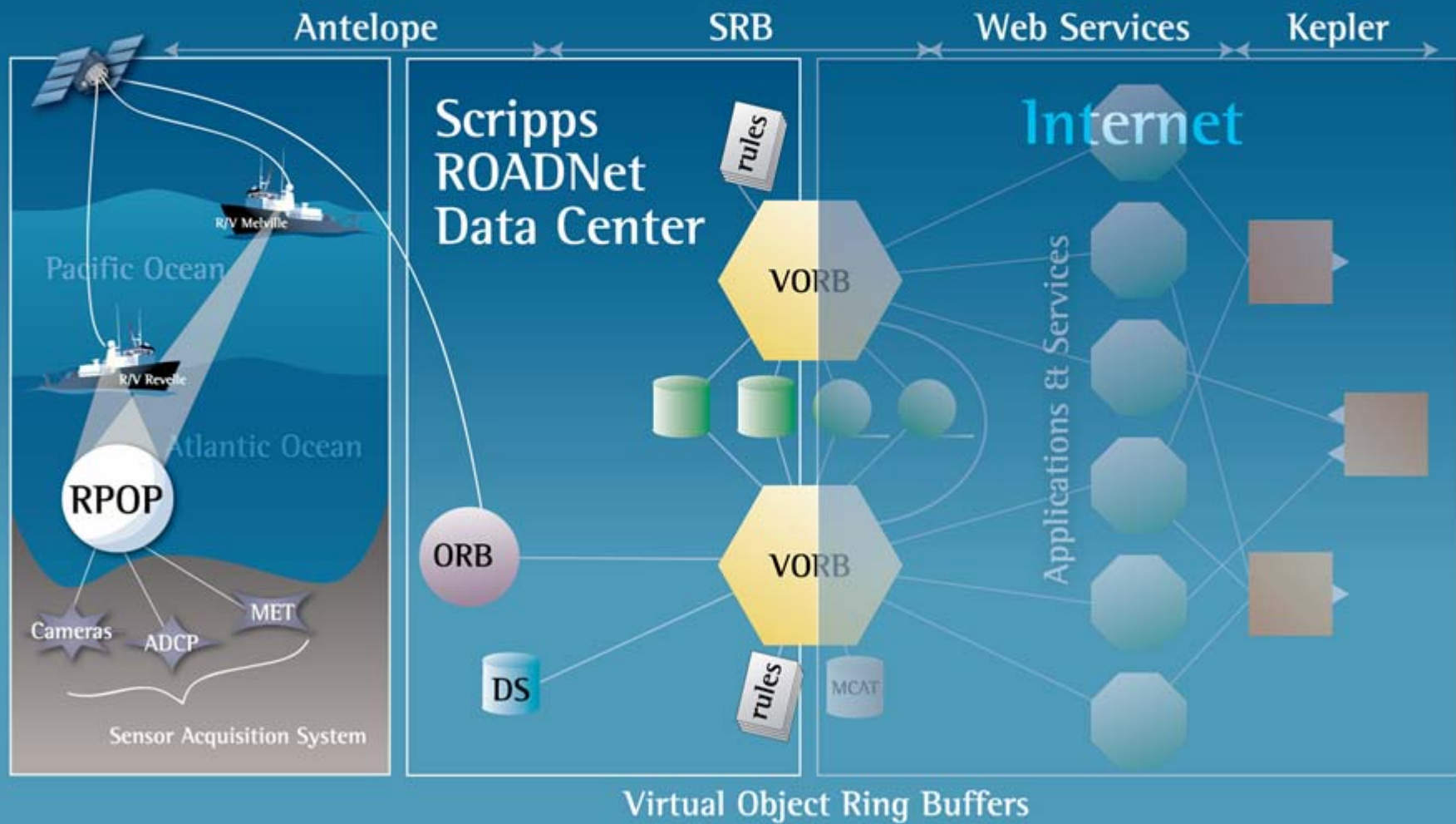




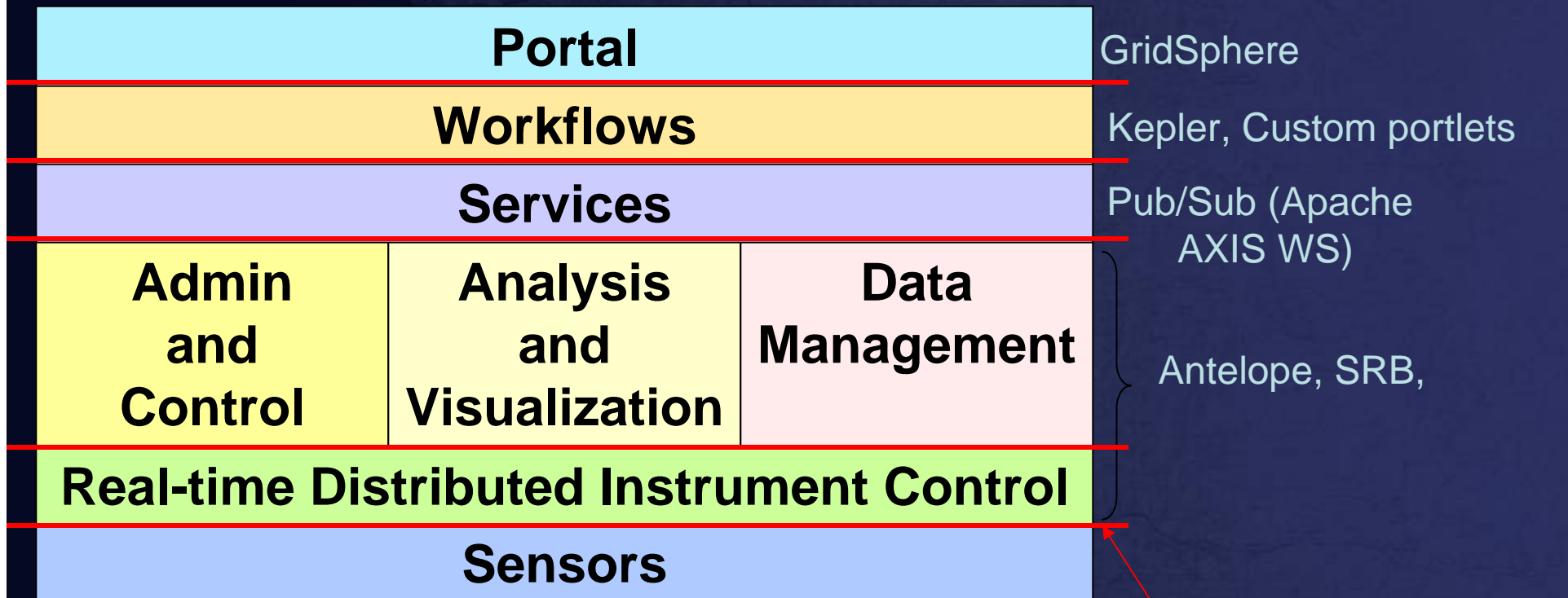




HiSeasNet, ROADNet Architecture



Sensor Network Stack Instantiated



Definition of standard interfaces



Scalability and Generalization

- Scalability
 - Manual configuration practical as observing systems evolve into 100s and 1000s of sensors
 - Decouple management task from physical system
 - Don't have to log in to each host to effect changes
 - Requires programmable access to full instrument and data stream lifecycle & resource registry
- Generalization
 - Lots of big, distributed observing projects on the horizon (LOOKING, ORION, NEON, etc.)
 - USArray active case of challenges faced by all large-scale observing systems
 - Common needs: modularization, automation, resource registries and standardization of interfaces
 - Critical for **federation of observing systems**



Related References

- <http://anf.ucsd.edu>
- <http://hiseasnet.ucsd.edu>
- <http://lookingtosea.ucsd.edu>
- <http://hpwren.ucsd.edu>
- <http://roadnet.ucsd.edu>
- <http://sccoos.ucsd.edu>

